

In the claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application.

1. (currently amended) An expandable stent comprising a main body, wherein, when the stent is unexpanded, the main body comprises:

a plurality of expandable helical segments comprising expandable circumferential segments and connecting segments (250); and

a plurality of main body cylindrical elements having collinear cylindrical axes, the main body cylindrical elements being adjacent to one another and being attached to one another by the connecting-segment portions of the helical segments, each main body cylindrical element comprising:

a circumference that is substantially identical to that of an adjacent cylindrical element; and  
a plurality of circumferential segments joined together by the connecting-segment portions of the helical segments, thereby forming the cylindrical element, and the plurality of circumferential segments comprising a majority of the circumference of each cylindrical element.

2. (original) The stent of claim 1, wherein the circumferential segments are comprised of a plurality of segments joined together to form a repeating pattern.

3. (original) The stent of claim 1, wherein the repeating

pattern comprises a square wave form having curved peaks and valleys.

4. (original) The stent of claim 1, further comprising: a first and second endzone, wherein the first and second endzones straddle the main body of the stent.
5. (previously presented) The stent of claim 4, further comprising a plurality of struts connecting each endzone to the main body.
6. (original) The stent of claim 5, wherein the endzones are each comprised of a plurality of rings.
7. (original) The stent of claim 6, wherein the rings in each endzone are joined together by a plurality of struts.
8. (original) The stent of claim 7, wherein the rings are comprised of a plurality of alternating linear and curved segments.
9. (original) The stent of claim 8, wherein the linear segments form an angle greater than 0° relative to the cylindrical axis of the cylindrical elements.
10. (currently amended) An expandable stent comprising:  
a first non-helical endzone;  
a second non-helical endzone;  
a generally cylindrically shaped main body having a cylindrical axis, the main body located between the first and second endzones and comprising:

a plurality of adjacent cylindrical main body elements having cylindrical axes collinear with the main body cylindrical axis, the adjacent cylindrical main body elements connected together and comprising:

a plurality of first expandable circumferential segments having a circumferential dimension; and a plurality of second expandable circumferential segments having a circumferential dimension that is less than the first expandable segment circumferential dimension, each of the second expandable segments connected to two first expandable segments via connecting segments (250); and

wherein the cylindrical main body elements are joined by connecting together, via connecting segments (250), second expandable circumferential segments of adjacent cylindrical main body elements in helical patterns, thereby forming a plurality of generally parallel helixes in the main body.

11. (original) The stent of claim 10, wherein at least a portion of the stent is radiopaque.

12. (previously presented) The stent of claim 10, wherein each of the endzones is attached to the main body with a plurality of struts.

13. (original) The stent of claim 10, wherein the stent is manufactured from a contiguous piece of material.

14. (original) The stent of claim 10, further comprising two helical segments in the main body, wherein the helical

segments are 180° apart.

15. (original) The stent of claim 10 wherein each endzone comprises a ring formed from a plurality of contiguous segments.

16. (original) The stent of claim 15, wherein the contiguous segments comprise linear and curved segments and wherein the linear and curved segments are joined together to form a repeating pattern.

17. (original) The stent of claim 16, wherein the first expandable circumferential element comprises a plurality of linear and curved segments joined together to form a repeating pattern that resembles generally a square wave form having curved peaks and valleys.

18. (original) The stent of claim 17, wherein the second expandable element comprises a plurality of linear and curved segments joined together and wherein the linear segments form an angle relative to the cylindrical axis of the stent that is approximately equal to the helical angle of at least one of the helixes in the main body.

19. (currently amended) An expandable stent that, when in an unexpanded state, comprises:

a cylindrical axis,  
a cylindrical main body about the cylindrical axis, the main body comprising:

a plurality of main body cylindrical elements having collinear cylindrical axes, the main body cylindrical elements being adjacent to one another and connected to one another by helical segments comprising expandable circumferential segments

and connecting segments (250),

wherein the helical segments comprise

a plurality of first expandable helical segments having a first pitch and a plurality of second expandable helical segments having a second pitch that differs in value from the first pitch, and wherein the first helical segments cross the second helical segments and the first and second helical segments are attached to each other via connecting segments (250).

20. (original) The stent of claim 19, wherein the second pitch has a value that is approximately twice that of the first pitch.

21. (original) The stent of claim 19, further comprising a plurality of generally cylindrical shaped endzones having cylindrical axes that are collinear with the main body cylindrical axis.

22. (original) The stent of claim 21, wherein the endzones have square outer edges.

23. (original) The stent of 20, wherein the first helical segments are comprised of a plurality of circumferential segments joined together to form a helix.

24. (original) The stent of claim 23, wherein the circumferential segments comprise a plurality of linear and curved segments joined together.

25. (original) The stent of claim 24, wherein the linear segments lie at an angle between 0-45 degrees with respect to the cylindrical axis of the stent.

26. (original) The stent of claim 23, wherein the second helical segments are comprised of a plurality of second circumferential elements joined together to form a second helix.

27. (original) The stent of claim 23, wherein the stent is radiopaque.

28. (canceled)

29. (currently amended) An expandable stent comprising:  
a plurality of first expandable segments;  
a plurality of second expandable segments;  
a plurality of adjacent cylindrical main body elements having collinear cylindrical axes, the cylindrical main body elements formed by connecting first expandable segments with second expandable segments via connecting segments (250);  
a plurality of first helical segments having a pitch, the first helical segments formed by connecting first expandable segments from adjacent cylindrical elements with each other; and  
a plurality of second helical segments formed by connecting second expandable segments from adjacent cylindrical elements with each other, wherein the second helices helical segments have a pitch that differs from the pitch of the first helical segments.

30. (canceled)

31. (currently amended) The stent of claim 30 29, wherein the connecting segment comprises an a substantially H-shaped segment.

32. (previously presented) The stent of claim 29, further

comprising a first and second endzone, the first and second endzones straddling the main body.

33. (original) The stent of claim 29, wherein at least one helical segment forms an angle of approximately 40° relative to the cylindrical axis of the stent.

34. (withdrawn) The stent of claim 29, wherein the first and second expandable segments have substantially identical shapes but are oriented differently.

35. (withdrawn) The stent of claim 34, wherein the first and second expandable segments comprise linear segments connected by curved segments, wherein the linear segments of both the first and the second expandable segments lie at oblique angles relative to the cylindrical axis.

36. (withdrawn) The stent of claim 35, wherein the oblique angles have the same absolute value.

37. (withdrawn) The stent of claim 36, wherein the oblique angles have an absolute value of approximately 16°.

38-42. (canceled)

43. (new) The stent of claim 1, wherein the connecting segments are substantially H-shaped.

44. (new) The stent of claim 10, wherein the connecting segments are substantially H-shaped.

45. (new) The stent of claim 19, wherein the connecting

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segments are substantially H-shaped.